

REMARKS

This is a response to the Examiner's comments set forth in the Office Action of January 4, 2011. No claims are added, amended, or cancelled. Claims 1-7 are currently pending in this application.

Reconsideration is respectfully requested in light of the comments and amendments herein.

The Office Action

The Examiner indicated that provisions of 35 U.S.C. § 112, sixth paragraph, have been invoked for the "means for electrically interconnecting the various adjacent electrodes" limitation in claims 3 and 5.

Claims 1, 2, 4, and 6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 98/329900 to Zilvold (hereinafter "Zilvold") in view of U.S. Patent No. 5,064,514 to Cawlfield (hereinafter "Cawlfield").

Claims 3, 5, and 7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Zilvold in view of Cawlfield and further in view of U.S. Patent No. 3,421,994 to Leduc (hereinafter "Leduc").

Means Plus Function Limitation - § 112, Sixth Paragraph

Applicant agrees with the Examiner that 35 U.S.C. § 112, sixth paragraph, has been invoked by the "means for" limitation of claims 3 and 5. However, the Examiner's statement is included under the heading "***Claim Rejections – 35 USC § 112, sixth paragraph***". The Examiner's discussion, however, did not include any rationale for rejecting the claims. MPEP § 2181(ii). Thus, Applicant's believe that the heading is erroneous and that the claims are not actually rejected. Clarification on this point would be appreciated.

Obviousness Rejections - § 103(a)

Claims 1, 2, 4, and 6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Zilvold in view of Cawlfield. Claims 3, 5, and 7 were rejected under

35 U.S.C. § 103(a) as being unpatentable over Zilvold in view of Cawlfield, and further in view of Leduc. Applicants respectfully traverse.

The Examiner acknowledged that Zilvold fails to disclose an electrically non-conducting cell partition and through channels. The Examiner cited Cawlfield as allegedly remedying this deficiency.

Claim 1 requires that “the heat-transferring medium that is present in the channels is not under an electric voltage”. The Examiner cited Cawlfield’s cell cooling plates **18, 19**, which the Examiner referred to as “an insulating cell partition/cooling element”, as allegedly reading on the non-conducting cell partition with through channels of the present claims. However, Cawlfield’s cooling plates include hollowed out or grooved areas **20** which are open on the side adjacent the anode **21** and the cathode **22**. In other words, coolant flowing through Cawlfield’s plumbing **24, 26, 65, 68** will be in direct electrical contact with the electrodes **21, 22**. Thus, Cawlfield’s cell cooling plates do not have through channels as required in present claim 1. This difference between Cawlfield and present claim 1 is further described in the present specification at page 1, lines 17-29.

In summary, Cawlfield fails to teach preventing the application of an electric voltage to the heat-transferring medium. When combining Zilvold and Cawlfield, a person having ordinary skill in the art would, if anything, arrive at an apparatus wherein the coolant is placed in the grooved areas of Cawlfield’s cooling plates. Thus, the coolant would be put under voltage by the electrodes which is prohibited by claim 1. The Leduc reference does not remedy this deficiency.

Furthermore, claim 1 requires the non-conducting partition to be located between the cathode and the anode. There is no motivation to locate Cawlfield’s cooling plates **18, 19** between the electrodes **20, 21** instead of on opposite sides thereof. On this point, Applicant notes that Zilvold teaches welding the anode **9** and cathode **10** to a central plate. This would have clearly prevented a person skilled in the art from removing the central plate and installing one of Cawlfield’s cooling plates. The only motivation to make such a modification is through impermissible hindsight.

For at least the aforementioned reasons, the present claims distinguish patentably over the references of record. Accordingly, withdrawal of the rejections and allowance of the claims is respectfully requested.

CONCLUSION

For the reasons detailed above, it is respectfully submitted all claims remaining in the application (Claims 1-7) are now in condition for allowance.

Respectfully submitted,

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May 3, 2011

Date

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